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SUSTAINABLE DEVELOPMENT AND INTERNATIONAL ECONOMIC COOPERATION: COMMODITIES

The commodity situation, developmental linkages between the commodity sector and other sectors, and actions required to develop such linkages in the context of diversification

Report of the Secretary-General of the United Nations Conference on Trade and Development

CONTENTS

		Paragraphs	Page
I.	INTRODUCTION	1 - 5	3
II.	SITUATION IN THE WORLD COMMODITY MARKETS IN THE EARLY 1990s	6 - 29	4
	A. Factors affecting commodity markets in the early 1990s	8 - 19	4
	B. Recent developments in commodity prices	20 - 25	7
	C. Short-term outlook	26 - 29	9
III.	DEVELOPMENTAL LINKAGES BETWEEN THE COMMODITY SECTOR AND OTHER SECTORS OF THE ECONOMY	30 - 76	10
	A. The conceptual framework	30 - 46	10

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CONTENTS (continued)

		Paragraphs	Page
	B. Constraints on the development of the commodity sector's linkages in developing countries	47 - 76	14
IV.	POLICIES TO PROMOTE COMMODITY SECTOR'S LINKAGES	77 - 111	20
	A. National policies	79 - 104	21
	B. International action	105 - 111	26
V.	CONCLUSION	112 - 113	28

I. INTRODUCTION

1. Many countries are confronted with depressed levels of economic growth and a lack of income-generating opportunities for their growing populations. The problem is of particular relevance for those developing countries that depend on commodities for their export earnings. The general and long-term downward trend in the real prices for commodities and a narrow basis for economic growth exacerbate concern about the economic prospects for many of them. Excessive dependence on a limited number of commodities makes these countries extremely vulnerable to events which take place in international commodity markets and are outside their control.

2. Moreover, the primary sector is often divorced from the rest of the economy, with limited linkages to other sectors. Consequently, its contribution to economic growth in the country is much below the potential, even when employment in this sector is high.

3. In the context of their development programmes, many countries make considerable efforts to reduce their dependency on the commodity sector. The aim is to shift to exports of higher-priced and processed products, thus increasing the value added, and to make their economies less vulnerable to instability in world commodity markets. More intensive linkages between the commodity sector and other sectors of the economy, which have direct and indirect as well as static and dynamic benefits for growth and development, are also sought.

4. The present study has been prepared in response to paragraph 8 of General Assembly resolution 47/185 of 22 December 1992, in which the Secretary-General of the United Nations Conference on Trade and Development (UNCTAD) was requested to include in his report to the General Assembly at its forty-ninth session the identification, on the basis of relevant national experiences, of potential developmental linkages between the commodity sector and other sectors of the economy, as well as appropriate action required at the national and international levels to establish and develop such linkages in the context of an effective diversification policy.

5. In this framework, the present report:

(a) Assesses the situation in the world commodity markets in the early 1990s;

(b) Introduces the concept of linkages in the context of development and diversification;

(c) Discusses the policies, at the national and international levels, that may help to improve, as evidenced by various country experiences, the linkages between the commodity sector and the rest of the economy in the context of diversification policies.

II. SITUATION IN THE WORLD COMMODITY MARKETS IN THE EARLY 1990s

6. The production and export of commodities are the principal activities generating income, employment, domestic savings and external resources and providing the basis for economic growth and development in a large number of developing countries. In the early 1990s, the situation in world commodity markets remained generally unfavourable for primary commodity exporters, in particular commodity-dependent developing countries, which led to a deterioration in the export sector of the latter, as can be reckoned by the following trends:

(a) The value of commodity exports continued to increase at a slower pace than exports of manufactures, resulting in a further decline of the share of non-fuel commodities in total world trade; 1/

(b) The downward trend in real prices for most commodities, and even in nominal prices for many of them, continued in 1991-1993, although there were signs of recovery early in 1994. Furthermore, there has been a steady decline in the net barter terms of trade for the non-oil exporting countries, particularly those in sub-Saharan Africa;

(c) Price volatility, despite a marked regression in the late 1980s/early 1990s, remained a predominant feature in some commodity markets. 2/ When, as was often the case, that volatility was not related to changes of supply it also contributed to fluctuations in aggregate export earnings of many countries.

7. The situation was of particular concern to those developing countries, especially the smaller ones, which were still heavily dependent on commodities. Most of these countries are in Africa and Oceania, with some in Latin America, especially in Central America and the Caribbean. 3/ Heavily commodity-dependent developing countries generally recorded a much poorer growth than countries with exports diversified into manufactures. Countries where manufactured goods accounted for at least 50 per cent of total exports enjoyed average annual gross domestic product (GDP) growth of 6.8 per cent between 1980 and 1992. Diversified commodity exporters grew by 3.6 per cent, but those that exported mainly non-oil commodities grew by only 1.4 per cent, so slowly that, in fact, their real income per capita declined. Below average performance prevailed among non-fuel mineral exporting countries, followed by agricultural exporters. 4/

A. Factors affecting commodity markets in the early 1990s

8. Factors that affect the situation in the world commodity markets have been discussed in a number of studies. 5/ Despite slight differences with regard to the importance of various factors, all these analyses show common features.

9. Demand, supply and prices of primary commodities have been influenced by two groups of factors in the early 1990s, the first group with long-run and continuing effects, the second one specifically related to this particular period. Among the long-term factors there are technological changes, demographic developments and persisting government intervention in agricultural

markets. The short-term factors include changes in economic growth in major importing countries, the economic collapse of the former Union of Soviet Socialist Republics and periodic adverse climatic conditions in the main producing countries.

1. Long-term factors

10. Technological change continued to put pressure on commodity prices, bringing about an increase in supply and a decline in the rate of growth of demand. Commodity supply has been strongly affected by technological developments and improved management methods. Improved and more efficient techniques of exploration and processing make it possible to exploit formerly inaccessible areas or types of deposits that were previously uneconomic. In agriculture, technological progress has been reflected in the introduction of high yielding and more disease-resistant varieties, as well as in expanded use of inputs such as fertilizers and pesticides and improvement of farm management methods, all of which have increased yields. Technological innovation has thus had two interrelated effects on commodity supply; expansion of production volume and reduction of production costs, both of them contributing to the decline in prices.

11. The demand for commodities has also been affected by technological change, as evidenced by the long-run tendency for the intensity of output of raw materials in developed countries to decline. This has basically been the result of saving of material in industrial processes and substitution of new materials for the traditional ones (for example, substitution of metals for non-metallic materials). Increased recycling has led to reduced rates of growth in demand for primary metals. 6/ In developing countries, by contrast, raw material consumption tended generally to rise as a result of the growing importance of industry in GDP.

12. The demand for food has been closely related to demographic factors. The low rate of population growth and a significant ageing profile of the population in developed countries have led to a lower per capita food consumption and a marginal decline in total food consumption. Moreover, dietary consciousness and health concerns have favoured the consumption of fruit and vegetables (at the expense of meat, sugar and dairy products) and of organically grown and high quality produce. On the other hand, high population growth rates in developing countries have been responsible for the growth in world demand for basic foods that are diet staples in those countries, particularly rice. However, demand potential has been constrained by low income levels.

13. The operation of international commodity markets continued to be distorted by large-scale government intervention in major developed countries. Prominent in this respect are a number of agricultural products, such as grains, sugar, vegetable oil and oilseeds, cotton, meat, and dairy products, for which production incentives exist in the form of price support to farmers, border protection and/or export subsidies. These policies have encouraged production above the level that might have otherwise been reached, thus reducing domestic demand for imports and increasing export supply at artificially low, subsidized prices.

2. Short-term factors

(a) Demand

14. Changes in economic activity, world wide and locally, have been among the predominant factors affecting demand for commodities in the early 1990s. Recession in Organisation for Economic Cooperation and Development (OECD) countries, in particular, aggravated the decline in demand for commodities in recent years. Slowdown in industrial growth and capital investment have especially affected markets of income-elastic raw materials, such as most metals and minerals, which are inputs to the production of durable items and investment goods. By contrast, changes in the pace of economic activity have had only a minor impact on the demand for most foodstuffs, which are generally not very income-elastic in these countries. However, with the economic recovery in some developed countries, particularly in the United States of America, at the end of 1993/beginning of 1994 the demand for commodities has gathered some momentum.

15. Disruptions in economic activity in the Eastern European transition economies, especially in the former Soviet Union, have resulted in a severe contraction of demand for a number of commodities. Imports of a wide range of them, such as tin, cocoa and tea, were reduced to a fraction of previous levels because of foreign exchange shortages, collapse of industrial activity in many of those economies, breakdown of transportation systems and disruption of links with traditional trading partners.

16. The overall tendency for demand to decline has been partially offset by sustained growth rates in South-East Asia, in South Asia and in some countries in Latin America towards the end of the period covered by the present report.

(b) Supply

17. On the supply side, in the early 1990s the political and economic upheaval in the former Soviet Union boosted the supply of some commodities to international markets. Exports of minerals such as aluminium, zinc, copper and nickel, as well as softwood (which competes with tropical timber), from this region have sharply increased as a result of a severe decline in industrial activity, and hence a decline in domestic demand, of a greater freedom to export on the part of enterprises and of the efforts to increase foreign-exchange earnings.

18. Concomitantly, a part of the supply growth in the international commodity markets can be ascribed to the pressure on some developing countries to increase export earnings in order to service their foreign debt and to cope with the requirements of structural adjustment programmes.

19. The supply of agricultural commodities has also often been influenced by climatic conditions in producing areas. The persistent excess supply of a number of commodities in the early 1990s resulted, inter alia, from substantial new investment in the sector and from several consecutive years of favourable weather conditions and bumper crops, with prices plunging to new lows (for example, tropical beverages, cereals and cotton in 1992/1993). In contrast, smaller crops and lower crop expectations resulting from adverse climatic

conditions helped to boost the prices of cotton and some food crops in late 1993/early 1994.

B. Recent developments in commodity prices

20. As can be observed in the graphs below, prices of non-fuel primary commodities continued to fall during most of the early 1990s, marking 1993 as the fifth consecutive year of decline in prices of these commodities exported by developing countries. The combined UNCTAD index of nominal dollar prices for commodities exported by developing countries fell by 3.5 per cent in 1993, following declines of 2.5 per cent in 1992 and 6 per cent in 1991. In terms of constant 1990 dollars (using as a deflator the unit value index of exports of manufactured goods from the five largest industrialized countries to the developing countries), the 1993 index was at a level of more than 50 per cent below its long-term average, the lowest point in the period following the Second World War. However, the index began to recover in the autumn of 1993 and a clear upward trend has been visible since then (a rise of 13 per cent between August 1993 and April 1994), triggered mainly by smaller crops and lower crop expectations and by an improving economic situation in the developed countries.

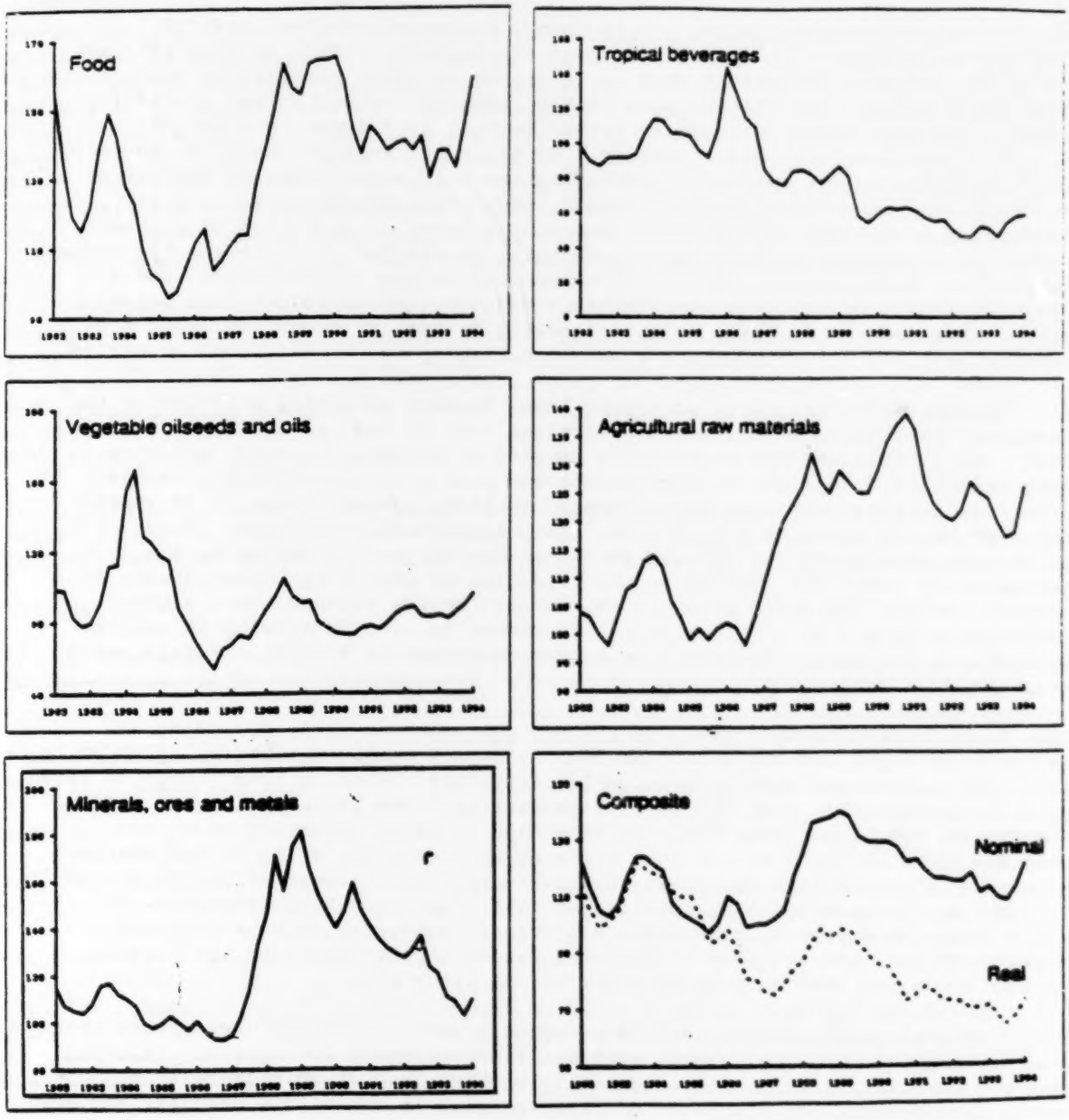
21. Prices of tropical beverages have been the most adversely affected in the long run, falling to historical minima after a sharp decline of 14 per cent in 1992. Favourable weather conditions, coupled with vigorous export policies in many producing countries, boosted supply and stocks to unsustainable levels. In mid-1992, robusta coffee prices plummeted to their lowest levels in 22 years. Cocoa prices declined by around 8 per cent, also to all-time lows. The subsequent recovery for cocoa and even more for coffee was caused by low estimates of 1993/1994 harvest and by retention of stocks by the producers of coffee. In the beginning of May 1994, robusta prices reached their highest level since June 1989. Prices of tea recovered in late 1992 owing to weather problems in Sri Lanka, India and producing countries in Africa, but fell again starting from spring 1993.

22. Food prices declined moderately (by 2 per cent) in 1992, following a decrease of 7 per cent in 1991. However, signs of a slight recovery appeared in late 1993 and became more pronounced in early 1994. Wheat prices jumped in 1993 as a consequence of lower output of high-quality crops in Australia, Argentina and Canada and higher than anticipated demand in major importing countries. Poor harvests in Japan and in some other Asian countries, owing to bad weather, have boosted world rice prices since mid-October 1993. Sugar prices recovered in 1992 and 1993, after a big decline in 1991. Low production forecasts in large Asian countries such as India and China, uncertainties regarding Cuban sugar supplies, and the possibility of a larger import demand by the former Soviet Union have helped prop up sugar prices since then.

23. Vegetable oils and oil-seeds are the only commodity group whose price index rose during the last four years, although from extremely low levels. Palm-oil and coconut-oil prices remained generally high because of weather-related production shortfalls, shortages of rape-seed oil (a substitute product) and low stocks of palm oil. Vegetable-oil prices as a whole maintained their upward momentum until January 1994, but have fallen slightly since then.

Figure

Quarterly commodity price indices, 1982 to 1994 (first quarter)
(1985=100)



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24. Prices of agricultural raw materials declined slightly by about 3 per cent in 1993, following a fall of 22 per cent in 1992. The decrease was particularly marked for cotton and jute from 1993, while prices rose for timber, both tropical and temperate. Prices of cotton remained at low levels during most of the period, with the exception of the end of 1992, because of the sluggish import demand from Europe and Japan. In the first quarter of 1994, prices increased by 50 per cent as compared with November 1993. The reasons standing behind the increase include a decrease in world production as a result of adverse weather, disease and pest damage, erosion of stocks, increased imports by China, and decisions by some Governments to ban or tax cotton exports. Natural rubber prices remained relatively stable, helped by buffer-stock purchases by the International Natural Rubber Organization.

25. Prices of metals and minerals collapsed in the early 1990s (declines of 9 per cent in 1991, of 3 per cent in 1992 and 15 per cent in 1993) amid protracted recession in OECD countries and growing pessimism over world-wide economic prospects. Metal markets were generally characterized by high levels of stocks owing to excess supplies from the republics of the former Soviet Union, weaker demand resulting from economic downturn and the failure of major producers to cut production. The large outflows of exports from the former Soviet Union depressed, particularly, aluminium and nickel prices. Weakness in automobile and construction industries contributed to lower prices for lead, zinc and iron ore. Of particular concern to some developing countries were the prices of copper and a number of minor metals, which have been in decline since 1990. The signs of economic recovery in some developed countries, however, have helped strengthen prices of most metals, and copper in particular, since early 1994.

C. Short-term outlook

26. Long-term factors such as technological progress and changing demographic and dietary patterns will continue to push commodity prices downwards. However, this trend may be slowed down or temporarily reversed by short-term factors. For this reason, short-term price prospects for most commodities give rise to moderate optimism. However, this is not expected to reverse the long-term trends in commodity prices.

27. Demand for commodities is expected to rise as a consequence of the improving economic situation in major developed countries. Some forecasts 7/ suggest a stronger rise in economic activity in OECD countries to take place in 1994 and 1995 as compared with 1993. The recovery is expected to be particularly pronounced in the United States, Australia, Canada and the United Kingdom of Great Britain and Northern Ireland. The rate of growth will remain high in South-East and South Asia, with some deceleration, however, in the main commodity-importing developing countries, especially China. Continuing economic adjustment in eastern Europe is not likely to increase the demand for commodities, at least in the short run. Stronger import demand resulting from better growth prospects and consequently rising consumption should benefit, particularly, the prices of metals and agricultural raw materials. A marked cyclical recovery is expected to take place in prices of basic metals, including zinc, copper and aluminium, in the last case as a result also of production cuts

undertaken by major producing countries, including the Russian Federation, during the first half of 1994. Prospects are good for natural rubber as well, in the context of resuming growth in automotive and tyre industries.

28. Adverse climatic conditions and resulting lower crop expectations will push prices of some agricultural commodities up in the short term. This is mainly the case for cotton, owing to lower than expected 1993/1994 crops in China and Pakistan as a result of a cotton disease in those countries. In the case of coffee, worries about crop prospects in Brazil, Colombia, Côte d'Ivoire and also (following the uprising in the key coffee-producing state of Chiapas) Mexico, coupled with cut-backs in capacity (already reflected in falling stocks), will help support prices as well.

29. The impact of the Uruguay Round of multilateral trade negotiations, completed in December 1993, on agricultural prices is not likely to be felt in the short run. According to the Final Act Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations, industrialized nations are to cut import barriers, domestic producer subsidies and export subsidies by a third over the six years to 2000/2001. For developing countries, the period is extended to 10 years, while the least developed countries are exempt. In this context, attention is mainly focused on the elimination of price-distorting direct subsidies to be effected by two major food exporters, the European Union and the United States. As these subsidies are phased out, other things being equal, temperate zone food prices should gradually rise, especially for grains (wheat in particular). This development might open up new export opportunities for competitive suppliers from developing countries. On the other hand, some developing countries relying on purchases of relatively cheap wheat and other agricultural commodities will be progressively exposed to the realities of the world market.

III. DEVELOPMENTAL LINKAGES BETWEEN THE COMMODITY SECTOR AND OTHER SECTORS OF THE ECONOMY

A. The conceptual framework

1. Concept of linkages

30. Economic sectors are connected to other domestic sectors through a number of direct and indirect linkages. 8/ Direct linkages consist of:

(a) Backward linkages, i.e., use by a particular sector of inputs of goods and services supplied by domestic producers (input-provision);

(b) Forward linkages, i.e., sale by a particular sector of its output to domestic customers as inputs to the production process (output-utilization). 9/

31. The utilization of an input produced in the country affects not only the sectors directly linked to each other but also those which supply goods and services used in the production of the input, and so on. These indirect linkages lead to a rise in output and employment beyond that caused by the direct linkage. Moreover, there would be increased expenditures on investment

and consumption throughout the economy because of the multiplier effect. When commodity projects provide infrastructure and social services, such as education, medical care and housing for the employees, developmental linkages are further intensified. In some cases, linkages may also contribute to the development of sectors which seem to be unconnected to the original activity. 10/

32. Apart from the impact on output generation, creation of employment and economic growth, expanded linkages also contribute to the improvement of entrepreneurship in the country and to the upgrading of technology and skills of the local labour force. New technologies and improved skills can spill over to other sectors of the economy as well, widening the basis for economic development.

2. Linkages and diversification

33. There is a close relationship between the process of diversification and the creation of the linkages. Linkage creation implies diversification, as it is generally associated with the emergence of new activities in the economy. These activities can be either those which initiate linkages or those which are prompted by linkages.

34. As the benefits and problems of diversification itself are already covered by a number of studies 11/ the focus in the present report is only on cases of developmental linkages of diversification. 12/

35. Vertical diversification increases the degree of processing of domestically available primary products. This is linkage-creating by nature, with additional stages of processing taking place in the country. Moreover, being an industrial activity, vertical diversification has an important impact on skill composition in the country. As the development of resource-based manufacturing is crucial for intensification of linkages in a country, much of the discussion on linkages will be related to diversification into processing industries either for export or for domestic consumption.

36. Horizontal diversification, which is diversification within commodities, is linkage-creating only if the new activity creates more direct and indirect linkages than the traditional one. In many cases, a different type of expertise is needed for the production and marketing of new products. As a result, horizontal diversification prompts new linkages and contributes also to the accumulation of new skills in the country. For instance, a higher intensity of linkages can be expected in the case of cut flowers or off-season fruits and vegetables (storage, transportation, packing, insurance, marketing services, etc.) compared to the production and export of bulk commodities such as sugar or coffee. 13/

3. Linkages and development

37. The degree of interdependence among various sectors of the national economy varies with the level of development of the country. Intersectoral linkages are most easily created in developed countries whose economies are, in general, more diversified than those of developing countries and possess the necessary skill composition. Moreover, economic activities have reached a critical mass in developed countries and this helps to make the creation of linkages economically viable.

38. In terms of development strategies, neither the creation of linkages nor diversification are goals in themselves. The advantages of viable diversification policies as discussed in other documents, 14/ and those of linkages as summarized above, need to be taken into account, among other factors, in devising development strategies. What really matters is not only the density of linkages, but also the fact that they are economically viable and in line with the dynamic comparative advantage of the country. In this respect, cost efficiency and competitiveness should always be borne in mind.

39. The efficiency criterion should be perceived in the long-term perspective. The initial costs related to the setting-up of linkages are high in countries with a low density of linkages, and the new industries may not be viable at the beginning. Therefore, allowance should be made for a "learning period" which would enable the country to develop its dynamic comparative advantage, for example in the processing of relatively cheap and accessible domestic raw materials.

40. At the same time, Governments may set other priorities than purely economic efficiency. Social or political goals such as employment creation, regional development or national control over the whole processing chain in a given sector may be of particular importance. Then the development of linkages can be chosen irrespective of their economic efficiency. Conversely, if, for example, increased foreign earnings have a very high priority, Governments can opt for the promotion of export-oriented, enclave-type activities with a low intensity of linkages with the rest of the economy.

41. A number of country studies on linkages have been undertaken 15/ with the aim of identifying the "key" sectors that display the greatest intensity of linkages or interdependence with other sectors. The purpose was to discover those sectors or subsectors that should receive special attention in development programmes, not only on account of the intrinsic usefulness of their output, but because they have the greatest ability to stimulate the growth and development of sectors above and beneath themselves. 16/

42. These studies cover mainly static, quantifiable aspects of linkages. According to current production structures, manufacturing exhibits the highest intensity of production linkages vis-à-vis other sectors. In the context of developing countries, this holds true especially in the case of intermediate natural-resource-based manufactured production (such as spinning and textiles, iron and steel or wood products), with both high backward and high forward linkages, and also for resource-based production of final manufactured goods (such as food processing, apparel or leather products), with high backward but

low forward linkages. Within the primary sector, agriculture fares far better than mining, in particular because the processing of agricultural products is relatively easy and can be undertaken with lower investment costs than that of minerals and metals. Moreover, there is a bigger scope for agriculture to utilize domestically produced inputs compared with the mining sector, where the use of material inputs is limited and capital equipment is mostly imported. Mining projects, however, can have positive developmental impacts in terms of linkages with service industries, such as the maintenance of machinery.

43. As regards employment effects of linkages, the picture appears fairly similar, with the rating of sectors decreasing from manufacturing to mining. Employment creation potential through linkages is closely related to the capital/labour ratios of different sectors along the processing chain. In general, the minerals and metals sector, which is mostly capital-intensive, tends to generate less employment in the initial stages of processing, with an increase in labour intensity at the higher stages, i.e., in the metal-working industry. Wood processing appears to have a higher labour share and thus better employment creation potential as compared with minerals and metals. The highest employment creation through linkages takes place in agriculture-based activities such as food processing, textiles and leather products.

44. Whether linkages are created with large or small enterprises has a bearing on the developmental impact of diversification. Large-scale, export-oriented production of minerals and plantation crops sometimes tends to function as an enclave in the national economy, relying on imports of inputs such as capital goods or fertilizers and exporting a large part of its outputs. As a result, the effects of such production structures in terms of stimulating developmental linkages remain relatively low.

45. The small-scale sector appears to have closer linkages to the domestic economy. As regards backward linkages, inputs of small-scale enterprises, including production tools, are more likely to be produced domestically. Access of smallholders to finance and, in particular, foreign exchange for imports is more difficult than for large producers, so they are often unable to obtain inputs and materials from abroad. Moreover, as the small-scale sector, in general, uses more labour-intensive techniques, the employment effects of linkages generated thereby are likely to be more important as compared with those generated in the more capital-intensive large-scale sector. The small-scale sector's links with modern processing plants encourage improved management and technological practices, which are vitally needed in developing countries.

46. In order to overcome the constraints resulting from their limited size, small enterprises sometimes also tend to intensify linkages among themselves by creating industrial clusters 17/ which are business networks of geographically concentrated firms operating in a specific industrial sector. The firms are linked with each other through subcontracting arrangements, sharing of information on new or improved products and technology and a set of common social links and values. Inter-firm linkages arising in industrial clusters thus also foster the competitiveness of small firms and have a significant dynamic impact on skills and technology in the sector itself and, through the spillover effect, on the rest of the economy as well.

B. Constraints on the development of the commodity sector's linkages in developing countries

47. Owing to the close relationship between the process of diversification and the creation of linkages, the constraints on diversification are also constraints on linkages. 18/ Moreover, there are specific barriers that limit the extent of linkages generated by a given diversification policy and cause the extent of linkages created by the same diversification activity to be different in different countries. These constraints vary from country to country and affect the economic viability of linkages. Three main groups of constraints can be identified:

(a) Initial conditions (resource endowment and climatic conditions, economic size and level of industrialization of the country);

(b) Internal constraints (economic policy, lack of capital, inadequate infrastructure, insufficient information flows and lack of technical skills and marketing expertise);

(c) External constraints (barriers in the access to foreign markets).

48. A general conclusion, reached from an overview, is that the major obstacles to the development of linkages usually lie in the group of internal constraints, which are aggravated by external obstacles when external orientation of linkage-creating sectors is envisaged.

1. Initial conditions

(a) Resource endowment and climatic conditions

49. Resource endowment may sometimes constrain the establishment of developmental linkages. Processing of local resources may become impossible because of the lack of complementary inputs. For example, aluminium smelting, which requires considerable quantities of energy, cannot be developed if a sufficient source of energy is not within reach. The lack of alloys of nickel or tin may render copper fabrication unviable and, as a result, linkages which might have arisen will not appear at all. Climatic conditions may restrict the opportunities for a country to substitute a traditional crop for a new one which is more linkage-creating.

(b) Economic size of the country

50. The size of the domestic market in terms of population and purchasing power is another factor that has a bearing on the viability of linkage-creating projects. Many industries based on natural resources, especially those in the minerals and metals sector, are subject to economies of scale. A large domestic market may stimulate linkage creation as its absorption capacity may help render the projects economically sustainable. If demand in the domestic market does not reach a given critical size, the industry will be established only if it is directed to external markets. Specific problems related to export activities will be a major constraint in that case.

51. The importance of economies of scale and the markets needed to realize them may be gradually reduced as a result of technological progress. For example, direct reduction of iron ore cuts costs and reduces the importance of economies of scale in steel production and makes it less dependent on the size of the market.

52. In the agriculture-based industries, economies of scale are generally less crucial. For this reason, commodity-sector linkages have often been stimulated in those industries, at least in the initial stages, by production designed to satisfy domestic needs. Exports then come at a later stage as a supplement to the local market. In Colombia, for instance, the setting-up of processing enterprises, in particular in the leather, cotton, sugar and cocoa sectors, was initially oriented towards supplying the domestic market, and only later towards exports. The existence of sufficient internal demand for soy-bean oil and palm oil were the major factors in the development of the soya complex in Brazil and of the most developed African palm oil processing industry, in Côte d'Ivoire. 19/

(c) Level of industrialization

53. There is a mutually supportive relation between industrialization and linkage creation. Higher levels of industrialization generally facilitate linkages, which, in turn, contribute to industrialization. Specific policies to create developmental linkages are much more crucial in countries where manufacturing is at a low level of development. Inability to make use of by-products from primary production also has a negative impact on potential linkages. The lack of skills in the country, which generally accompanies a low level of industrialization, for example in repairs and maintenance, may put a constraint on the development of linkages as well.

2. Internal constraints

(a) Economic policy

54. Policies that promote domestic processing of primary commodities and/or replacement of imported products by locally produced manufactures are, in principle, linkage-creating. Subject to the importance of other constraints, they result in an increase in the intensity of linkages throughout the national economy.

55. Some problems may nevertheless arise with respect to the developmental impact of linkages in the context of these policies. Firstly, in the case of import substitution, some linkages may have been created irrespective of the country's comparative advantage as a result of strong protectionist measures in favour of domestic suppliers, and hence at a high cost to the economy. Particularly if such protection needs to be permanent, these linkages, no matter how beneficial they are in terms of employment, may remain artificial and come under a strain if either the inputs or the final products are confronted with foreign competition. In such cases, the indirect and dynamic effects of linkages become more important in terms of their contribution to the economy and may be the determinant factor for pursuing such policies.

56. Secondly, anti-export bias resulting from export taxes and an overvalued exchange rate puts a brake on the development of export-dependent processing activities, eroding their competitiveness in international markets. This stifles the development of the linkage potential, which could be created on an economically rational basis.

57. Diversification and expansion of linkages involve structural changes in the economy, which may be resisted by domestic groups that could be hurt. Opposition may arise among those involved in (a) profitable exports of primary commodities in the raw form; and (b) imports of goods with which the local diversified production would compete. If the Government fails to pursue consistent economic policies and to gather sufficient political support to implement its decisions effectively, the success of diversification policies may be seriously undermined as a consequence.

(b) Lack of capital

58. Creation of linkages requires substantial amounts of investment. These investments are directed either to new activities or to the adaptation of existing activities to new opportunities generated by linkages. In the case of backward linkages, investments are needed to ensure supplies of inputs to new industries. In the case of forward linkages, they are designed for the establishment of enterprises which would make use of newly available supplies of raw or semi-processed products.

59. Even when sufficient financial resources are available, as was the case, for example, with commodity-exporting (especially oil-exporting) countries during the price booms of the 1970s and early 1980s, the utilization of those resources may not lead to the optimal outcome for the country. Development of numerous "white elephants" with little, if any, dynamic linkages with the rest of the economy can be cited in this respect. 20/

60. Owing to the generally low capacity of the national economy to generate savings and to the rudimentary nature of local financial markets, interest rates can be too high and loans difficult to obtain. This is particularly important in the case of some crucial links to be established by small or medium-sized enterprises, for example, enterprises involved in the processing of agricultural products, small-scale repair shops and workshops providing auxiliary inputs to processing industries or using agricultural and mineral by-products. These key actors in the creation of developmental linkages in developing countries often have severe difficulties in access to finance through the banking system and have to resort to more expensive, often informal, lending sources.

61. Given the scarcity of domestic savings, a large number of developing countries depend on inflows of financial resources from abroad. While the original investment with potential linkages may be large enough to interest foreign official or private sources of finance, the activities to be created through linkages, in particular if they are small, may not be sufficiently attractive for such finance. Moreover, foreign private capital continues to be directed to a limited number of countries, usually those which are larger, more diversified and less commodity-dependent and where the basic physical and human infrastructure is already in place. 21/

62. In these circumstances, many less developed commodity-dependent countries have to rely on official development assistance for a substantial part of their investments, including for diversification purposes and linkage creation. The situation is particularly critical in Africa, where the resource gap has been widening with the decrease in real net financial flows and insufficient domestic savings. Moreover, the bulk of official assistance is not designed for commodity-related export diversification or linkage creation 22/ and may only have been supportive through its contribution to the enabling environment (infrastructure, technical assistance, human resources development, etc.).

(c) Inadequate infrastructure

63. The existence of an adequate national and regional infrastructure (transportation and storage facilities, power and water supply, irrigation systems and telecommunications) is quite often a determining factor in fostering commodity sector linkages. Poor conditions of roads or railways linking primary producers to manufacturers and to market outlets can delay production and delivery schedules. In the United Republic of Tanzania, for example, insufficient finance for the maintenance of infrastructure has caused a rapid deterioration of the transport network, which has resulted in difficulties in delivering raw materials to processing plants. The success of some diversification policies is dependent on the existence or the establishment, through linkages, of an infrastructural basis and the associated service sectors which, in turn, positively affect other sectors and the development process. For example, horticultural exports require good storage and air transport facilities and good logistical support. In Senegal and the United Republic of Tanzania, efforts to diversify into horticultural exports and cut flowers have been confronted with poor air freightage. In Zambia, the lack of linkages in terms of refrigerated storage near airports has constrained the development of a potentially lucrative fruit export industry. 23/ In the fisheries sector, linkages with the provision of port services, cold storage and canning facilities are essential; a lack of these facilities sharply reduces the benefits of fisheries exports to the domestic economy in countries like Mauritania, Mozambique, Solomon Islands and Cameroon. Over time and with the implementation of appropriate policies, these linkages can be created and provide a considerable boost to economic activity in the country.

(d) Insufficient information flows

64. The creation of developmental linkages requires an efficient flow of information between the initial activity and the activities to be created by linkages. This information pertains to both sources of supply and outlets for products. For the creation of backward linkages, potential suppliers must be aware of the specific needs of the initial activity and able to assess their capability to supply the necessary products or services. In the case of forward linkages, information flows would help in alerting potential entrepreneurs about the possible uses of the product as an input into different lines of processing and manufacturing. Information for both types of linkages is most appropriately provided by the firm undertaking the initial activity. Its dissemination may require the intervention of public authorities or industry organizations such as chambers of commerce and industry.

65. For export-oriented production, including activities created by forward linkages, information on foreign markets is necessary, i.e. market opportunities, potential commercial partners, consumer preferences and competitors. Information about health and other standards in importing countries is crucial for the creation of successful linkages with sectors such as packaging.

(e) Lack of technical skills and marketing expertise

66. The creation of linkages, in principle, requires that a new activity is embarked upon or an old one is adapted. Thus, an entrepreneurial spirit, which would identify the opportunities and act accordingly, is indispensable.

67. A low overall level of education (high rates of illiteracy) and lack of specific skills are a serious constraint to making full use of opportunities to create linkages in some developing countries. Production and marketing of services or products prompted by linkages, in particular the adaptation of existing production practices to the specific requirements of the linkage-creating activities, necessitate technical skills and know-how. So, countries experiencing shortages of skilled labour (technical expertise) are limited in exploiting linkage opportunities. For example, most fish processing in Mauritania must be carried out by foreign participants, as local fishermen do not possess the necessary skills. It is important, in this context, that training be undertaken to develop indigenous human resources, otherwise linkages will not be created.

68. Knowledge restricted to growing a particular traditional crop makes it difficult for small farmers to shift to other crops which could potentially develop as a result of the creation of linkages.

3. External constraints

69. Economies of scale and availability of market outlets play an important role in diversification and creation of linkages. Therefore, particularly where the domestic market is small, export opportunities become crucial. In this context, policies of potential importing countries may limit market access and thus impede the linkage-creating activity from being embarked upon. In assessing export difficulties, it is important to note that only a part of the problem can be ascribed to unfavourable import policies. The bulk of the problem is related to the inability of exporters in developing countries to penetrate into the international marketing channels and distribution networks in importing countries.

(a) Barriers in the access to developed markets

70. Import regimes in developed countries are generally biased in favour of raw materials and against manufactured products. Processed goods produced as a result of the creation of forward linkages face higher tariffs and a higher incidence of non-tariff barriers than primary commodities, with the exception of agricultural products where primary production in developed countries is protected by various means. This causes difficulties for a shift by developing

countries in the composition of their exports from primary products to semi-finished goods or manufactures, which would have the highest linkage-creating impact on their economies.

71. As regards tariffs, even if around 50 per cent of developing countries' manufactured exports to the developed world are covered by the Generalized System of Preferences (GSP), of which about 50 per cent are granted GSP treatment, some items of particular interest to developing countries (such as processed agricultural products, textiles, leather products, etc.) are either not included in the GSP schemes at all, 24/ or only to a limited extent (lower tariff reductions, use of tariff quotas). The same holds true for the Caribbean Basin Initiative. By contrast, the Lomé Convention does not contain limitations regarding manufactured products, except for some processed foods, fruits and vegetables. Consequently, these products have to face most favoured nation (MFN) tariff rates. The highest MFN tariffs are imposed on some textile, clothing and leather articles and on foods. This situation is likely to persist, as even the tariff cuts on textiles and clothing, for example, agreed as an outcome of the Uruguay Round of multilateral trade negotiations remained (with 22 per cent reduction) below average.

72. Moreover, the structure of MFN tariffs and also, to a lesser extent, that of GSP rates, act against diversification into processed products because of the tariff escalation. Low protection is granted in developed countries to most unprocessed commodities which do not compete with local producers, more protection is then given to semi-processed items and yet higher barriers are erected against imports of fully processed goods.

73. The recently concluded Uruguay Round presents rather mixed and ambiguous results in respect to the tariff escalation; agreed reductions in tariffs do not clearly rise or fall with the level of processing. Whereas tariffs on some groups of products will be cut progressively along the processing chain (wooden articles, hard fibres, rubber, zinc, nickel and tobacco, for example) the pattern of reduction will further accentuate the anti-processing bias in the case of other, mainly agricultural items (hides, skins and leather, cocoa, fish, oilseeds, textile fibres, fruit, beverages, tropical nuts, etc.). 25/

74. In some cases, non-tariff barriers are the major impediment to export-oriented diversification. Among the main non-tariff barriers are voluntary export restraints, including the Multifibre Arrangement (MFA); quotas; restrictive licensing systems; variable levies; price undertakings; internal taxes; seasonal barriers; stringent rules of origin; anti-dumping and countervailing duties; and health and sanitary regulations. Analyses show that non-tariff barriers are resorted to especially in sectors already protected by high tariffs. 26/ As a result of the Uruguay Round, some of these barriers will be abolished or reduced, especially in the textiles and clothing sector (phasing out of MFA by 2005) and in agriculture (tariffication of import barriers and their gradual reduction over six years).

(b) Barriers in the access to developing markets

75. Markets of other developing countries represent a large potential for exports of processed products originating in these countries. Export

opportunities in these markets might be somewhat easier to exploit than those in developed countries because of sometimes lower requirements of consumers as regards product standards. The quality of locally produced inputs or processed products can become less of a constraint. Therefore, expansion of South-South trade, may offer opportunities for the creation of linkages in the exporting countries. However, despite high rates of growth registered in South-South trade, its share in total exports of developing countries remains very low. 27/

76. The unsatisfactory level of South-South trade is attributable to several types of factors. First, import barriers in many developing countries, which often tend to be higher than in developed countries, may discourage South-South trade. For example, high tariffs in neighbouring African countries are cited as a constraint on Senegalese export-oriented processing of commodities. Secondly, many States tend to produce competing rather than complementary goods, which reduces intraregional trade opportunities. Thirdly, trade is hampered by the existence of a large number of usually non-convertible currencies and by the lack of convertible foreign exchange, which complicates the smooth course of transactions.

IV. POLICIES TO PROMOTE COMMODITY SECTOR'S LINKAGES

77. Analysis of experiences in countries that have been successful in the development of linkages (for example, Brazil, Colombia, India, Malaysia, Mexico, the Republic of Korea, Turkey and others) leads to the following conclusions. First, successful countries have generally benefited from favourable conditions in terms of natural and human resource endowments and market size. Secondly, conscious and coherent efforts by the Governments, usually aimed at providing support to private entrepreneurs, played an essential role in resource-based, linkage-creating export diversification and import substitution. Thirdly, diversification efforts were, to a varying degree, supported from abroad, especially through foreign direct investment. Moreover, while policies helped in the creation of linkages, the very existence of the latter, in turn facilitated the creation of further linkages. Thus, the initial difficulties disappear or are more easily surmounted as the country becomes more diversified and industrialized over time.

78. The combination of policies used to promote linkage-creating diversification has varied from one country to another. Consequently, no generally applicable set of policies, with an explicit guarantee of success, can be provided. Drawing on available experience, it is nevertheless possible to identify essential ingredients of a more comprehensive package of measures which may be conducive or supportive vis-à-vis linkage-creating diversification, be it oriented towards domestic markets or exports. These policies include elements at the national and international levels, the latter being of greater importance for the poorer countries.

A. National policies

79. Supportive action by national Governments and their coordinating role are of utmost importance for the viability of diversification efforts and the creation of linkages. Governments need to provide a delicate interplay of sound macroeconomic management and specific support services, creating a favourable enabling environment. At the same time, the private sector plays an important role in the micro-economic context, as a number of support services may be provided by self-help through professional associations or cooperatives.

1. Economic policy

80. Evidence in the various country studies confirms that the creation and maintenance of an appropriate economic environment is critical for successful diversification and the creation of developmental linkages. Two types of policy measures should be included: (a) those conducive to the growth of investment in general; and (b) those which are explicitly designed to support linkage-creating activities and the establishment of linkages. As was mentioned above, commodity-based manufactures offer the greatest potential for the creation of linkages.

81. It appears that diversification in some successful countries has been made possible by, and at the same time has contributed to, high rates of economic growth. 28/ The faster the economic growth, the more rapidly did diversification of the production and export base take place. Moreover, the growth in the commodity sector seems to have been of paramount importance; the faster the growth in commodities, the more rapid was the diversification of the economy away from commodities and towards manufacturing.

82. What seemed to matter in diversifying countries was the Government's commitment towards a stable political and macroeconomic climate, coupled with trade and exchange rate policies that stimulated exports and internationally competitive import substitution. In addition, specific measures encouraging processing of local raw materials have often been adopted.

83. Especially when the size of domestic markets is limited, export orientation and trade policy reforms are of particular importance to the success of diversification programmes and the creation of eventual linkages. Trade policy reforms consist mainly of devaluations, which boost export capabilities, of reduction of anti-export bias resulting, inter alia, from export taxes, and of liberalization of imports. Despite the liberalization of imports, which makes possible the acquisition of necessary inputs and machinery, devaluations favour domestic producers of inputs, and thus linkages.

84. A review of country evidence suggests, however, that devaluations and other adjustment measures related to liberalization have not always led, on their own, to an automatic and rapid increase in resource-based linkage-creating exports. Some studies 29/ indicate that there is no clear association between trade policy reforms, especially devaluation, and diversification into production and exports of manufactures in the case of the least developed countries.

85. Moreover, many successful countries did not adhere to the principle of neutrality between production for the domestic and the international markets and opted for (a) some degree of selective import protection in favour of newly established processing industries; and (b) active export promotion policies. The case for government intervention seems to be stronger in less developed countries, which suffer from structural rigidities, poor infrastructure and low skill capacity and where markets are fragmented or imperfect.

86. Apart from subsidy-containing instruments, incentives for diversification into specific linkage-creating activities, in particular production of processed commodities for export, can be provided by the use of sliding export taxes or by restrictions or bans on exports of raw materials. In Malaysia, generous government incentives, offered since 1970 in order to encourage downstream processing of palm oil (in particular sliding export taxes, depending on the degree of processing) have led to substantial palm oil refining. One of the most spectacular examples of stimulating processing activities and creating linkages by means of imposing restrictions on raw material exports concerns Indonesia where, since the late 1970s, the ban on log exports has stimulated exporters to switch into plywood and sawn timber. The same policy is being applied in the rattan industry, where progressive bans on the export of raw and semi-finished rattan have been imposed. 30/

2. Promotion of linkage-creating investments

87. Among the measures relevant to diversification are fiscal instruments 31/ and the provision of concessional credit. 32/

88. Fiscal measures are often closely connected with investment promotion; some of them are used as a part of investment incentive laws. The potential advantage of these measures for diversification purposes consists in the possibility to use them on a selective basis, for example, to encourage linkage-creating activities. In most cases these measures have focused on export-oriented diversification. Major instruments in this area are tax holidays, accelerated depreciation, tax refunds or lower taxes on selected activities. Financial incentives can be targeted on diversification and linkage-creating export industries. In many cases, eligibility is conditional on domestic content requirements, which is another way of stimulating the creation of linkages, or on an export obligation. In Colombia, for example, non-traditional exports benefited from reimbursement of indirect taxes during the 1980s. In Senegal, an export subsidy scheme was adopted in the 1980s which provided support to specific products (for example, canned fish, fertilizers, shoes, textiles and agricultural equipment). However, the scope of the support had to be revised, owing to problems related to the government budget deficit. 33/ Provisions exist in Kenya for a 20 per cent tax rebate on exports of manufactures. 34/ An export incentives scheme operates in Zimbabwe whereby non-traditional exports receive a tax free cash payment equivalent to 9 per cent of the value of the exports, provided that the goods have a minimum local content of 25 per cent of the export value. In addition, manufacturing exporters receive a supplementary allocation of foreign exchange equivalent to 25 per cent of their previous year's incremental export performance. 35/

89. Some Governments have encouraged domestic private investment by offering pre-investment assistance, including financing of pre-feasibility and feasibility studies and assistance in identification of partners for investment, and through special credit arrangements favouring diversification projects. In Colombia, for instance, several special credit lines have been set up to this end, specifically (a) investment credits to finance investment in production, quality control and marketing of exportable goods (up to 90 per cent of total investment costs); and (b) working capital credits covering pre- and post-shipment financial needs of exporting firms. Since 1991, these credit lines have been administered by the new foreign trade bank Bancoldex (Banco Colombiano de comercio exterior). 36/ However, government assistance has not been specifically targeted on linkage-creating projects.

90. Especially in countries with a large State participation in the production and processing of primary commodities, in particular minerals, the role of Government in undertaking investments is essential. There is a strong case in resource-rich economies for increasing the investment share of income through, inter alia, effective resource rent taxation, and channelling them into a capital fund earmarked for investment in diversification. Attempts have been made to use the windfall rents from commodity exports during the price boom for horizontal and vertical diversification, with varying degrees of success. Successful diversification of the Chilean economy owes much to the opportunities provided by the country's resource endowment. 20/ In Colombia, a government-administered Fund for Development and Diversification has been set up, financed by taxes on coffee exports, other contributions from coffee producers, direct government allocation and external loans. The finance accumulated in the Fund has been used for the promotion of various non-traditional exports. 37/

91. In most developing countries, the scarcity of domestic resources makes diversification dependent on the attraction of foreign investment. Governments may be instrumental in promoting these investments by providing an "enabling environment".

92. Governments can also encourage foreign direct investment, including joint-ventures between companies engaged in the commodity and commodity-processing sector and relevant foreign partners. The participation by foreign companies may be in the form of finance, know-how and market opportunities, as well as new forms of foreign involvement such as minority equity investment, provision of management and technical services and licensing. The latter is evidenced by the Brazilian experience in the development of the Albras-Alunorte alumina aluminium complex. 38/

3. Provision of support services

93. Country experiences suggest that the most critical and often crucial element in diversification and the creation of linkages is the provision by the Government of specific support services. 39/ The Government has a leadership role in the development of support services, but the partnership with the private sector is also of utmost importance as it improves the effectiveness of these services. Four main areas, with a varying degree of involvement by the Government, may be identified: (a) provision and maintenance of infrastructural

facilities; (b) assistance in the identification and development of viable diversification projects, and, eventually, linkages; (c) assistance in marketing; and (d) assistance in training.

94. Measures to remove bottlenecks resulting from inadequate transport facilities (roads; and ports and airports capacity), water and power supply and communications are important for the development of linkages. A number of infrastructural projects have been undertaken in Ghana, for instance, with foreign financial and technical support. Donors have also contributed to the rehabilitation of roads and railways in the United Republic of Tanzania. At present, one of the major projects in that country is the integrated road programme. The Colombian transportation system has been improved in recent years thanks to government infrastructural policies, encouraging privatization and development of private initiative. This has facilitated exports of many non-traditional and processed commodities, in particular flowers, fruits, clothing and leather goods. As regards agricultural products, irrigation systems and provision of storage facilities near airports and ports are essential.

95. Another policy in the area of infrastructure that is particularly conducive to the development of linkages is to provide fully equipped industrial estates or to develop suitable sites with provision of zoning and utilities by local authorities or industrial development organizations. In this context, construction can be left to be done by enterprises themselves or by cooperatives, associations or construction firms. 40/

96. The identification and development of exportable products is another area of crucial importance for successful export diversification and the creation of linkages. Exportable products must satisfy the quality standards required by foreign customers. Close cooperation between Governments and the private sector is necessary in this respect. Participation by the private sector in funding these activities (for example, through taxes and royalties paid by producers and exporters) would increase their effectiveness. An important contribution can also be made by foreign investors through the provision of the necessary know-how.

97. Government support in research encourages the private sector to respond to opportunities in terms of diversification programmes and creation of linkages. This may be provided:

(a) In the form of specific programmes (such as the National Research Programme for Soya, financed by the Brazilian Government, which involved more than 150 projects in various research centres and universities); 41/

(b) Through specialized research institutions, usually established with government funding or under government auspices (such as the Malaysian Palm Oil Research Institute, responsible for applied research in palm oil technology and processing; the tea institute in Malawi, phosphates and fertilizer institutes in Tunisia and India or the timber institute in Indonesia);

(c) Through the introduction of legal measures stimulating private sector research.

98. Non-compliance with quality requirements in the major markets, including health standards for foods, has often hindered diversification efforts of producers in developing countries. Quality is relevant not only to the supply of the final product, but also to that of domestic inputs and services. A substandard input or packaging may make the product unacceptable and prevent the linkages from being created.

99. Two options could be pursued in parallel to raise the competitiveness of national producers in terms of quality. First, the Government may introduce some form of quality control, based on defined minimum standards, and establish quality grading systems. To ensure the implementation and administration of quality standard systems, institutions and services related to quality control should be built up with public support and on an internationally competitive level. In India, for example, the Export Inspection Council operates to administer pre-shipment inspection. Information about quality standards in major export markets should also be made available. In Colombia, for instance, this service is provided by the Foreign Trade Council. Secondly, manufacturers and exporters could impose a degree of self-control through their professional associations. Useful cooperation in quality issues may be provided by customers in developed countries as well. In both cases, the provision of quality control services for export items has significant spillover effects which improve the quality of production for the domestic market as well.

100. The identification and penetration of new export markets is a complex problem which often requires government support. This holds true even more in the case of efforts to diversify exports into non-traditional commodities or manufactures because (a) exporters can no longer use export channels they are familiar with from commodity trade; and (b) they are confronted with different and more complicated marketing systems. Thus, export diversification has a significant link with the development of marketing skills, which can then contribute to the marketing of other products.

101. Country experiences with export diversification, especially in Asia and Latin America, point to the importance of joint efforts in the marketing area between Governments and private exporters in market research and promotion of products, in particular for small and medium-scale exporters.

102. Chile's diversification away from copper owes much to the export promotion activities of the government organizations ProChile and Asexma. Pescom, a government-owned company, has been successfully marketing Mozambique's prawn production in Europe and Japan. Some of the more advanced Asian and Latin American countries have developed public/private strategies for the export of certain commodities: non-traditional agricultural products in Bolivia, fruits and shrimp in Colombia, steel in Venezuela, processed foods and marine products in India, processed timber in Indonesia, palm oil in Malaysia, etc. These strategies in most cases do not involve centralized marketing of the export products, but rather supportive services by the Government for private marketing enterprises.

4. Provision of training

103. In many developing countries shortages of skilled labour in the areas of production, management and marketing are a serious constraint to viable diversification efforts and to exploiting potential linkages. It is widely accepted that a high level of general education is essential to prepare a trainable and flexible workforce. Governments should therefore centre on facilitating access to general education and on improving its quality.

104. Flexibility is particularly important for small-scale enterprises, which have the potential to respond to a variety of linkage opportunities as they arise. In this context, increased attention should also be paid to technical training, including on-the-job training, which is a crucial prerequisite for the development of new processing activities and provision of services. Practical managerial training should also be encouraged, as well as acquisition of marketing skills.

B. International action

105. Diversification efforts of developing countries, which are crucial in the development of linkages, also require support at the international level, particularly in the form of the removal of obstacles in the access to both developed and developing markets and in the form of increased official development assistance targeted on diversification projects and the elimination of obstacles to the creation of linkages.

1. Access to markets

106. Despite generally positive results achieved by the Uruguay Round in the area of market access, some constraints still remain, which might hamper the diversification process and the creation of developmental linkages in developing countries, in particular tariff escalation and non-tariff barriers. There is a need to eliminate the implicit bias against some "diversified" exports originating in developing countries.

107. Another concern of developing countries related to market access is the erosion of trade preferences under GSP and other preferential arrangements (such as the Lomé Convention). Proposals have been made 42/ that preference-giving countries should try to compensate for such adverse effects through a larger product coverage, reduction or elimination of restrictions on preferential imports and simplification of the schemes, with increased transparency and income effectively transferred to beneficiary countries. Comprehensive product coverage in GSP would contribute to diversification efforts and the creation of consequent linkages.

108. Progress in regional and subregional integration might also foster diversification in developing countries, bringing down tariff and non-tariff barriers in trade among participating countries. Financial and payment mechanisms should be sought as well, in order to alleviate the constraints

resulting from the non-convertibility of local currencies and from the lack of convertible foreign exchange.

2. International financial and technical assistance

109. Given the shortage of domestic financial resources and frequent insufficiency in private capital flows (especially to Africa) official development assistance will continue to play an important role in the provision of funds for economic development. Up to now, however, the bulk of official development assistance from international financial institutions and bilateral donors has not been directed to commodity-related export diversification. Moreover, even the existing loans have, to a large extent, favoured projects in horizontal diversification over processing activities based on domestic natural resources, which have much stronger linkage-creating effects. Loans by international financial institutions are often provided for projects in private enterprise development as such.

110. In this context, proposals have been put forward to earmark a part of resources within official assistance for diversification purposes. Among them is the project for an African diversification fund or diversification facility in the African Development Bank 43/ which would help to facilitate the diversification of the African commodity sector by preparing technically and economically viable diversification projects. This could provide a significant contribution to the development of linkages in those countries where intersectoral relations are particularly weak. The resources of the fund are suggested to be raised from bilateral donors on a voluntary basis and from multilateral financial institutions.

111. Beyond lending for diversification projects, financial assistance is needed to create a domestic supportive environment, including development of related infrastructure and human resources, and for technical assistance in pre-feasibility, feasibility and market studies both for export-oriented and linkage-creating investments. The World Bank, regional development banks and bilateral aid agencies have been the main sources of international support for infrastructure in the form of long-term low interest loans and grants. A large number of technical assistance projects were financed totally or partially from the resources of the United Nations Development Programme. The United Nations Industrial Development Organization is also assisting countries in projects including commodity processing, inter alia, through the programme of investors' forums which bring together entrepreneurs of the host and home countries. Technical assistance with elements of export diversification is delivered by the International Trade Centre UNCTAD/GATT, the Food and Agricultural Organization of the United Nations, UNCTAD and by bilateral donors.

V. CONCLUSION

112. The commodity sector remains the principal source of employment, income and savings in many developing countries and continues to play the role of the "engine of growth". This function can be performed with a greater effectiveness when the linkages between this sector and the rest of the economy are more developed.

113. There is a need, therefore, to include the creation and intensification of linkages as an important element in development programmes. In doing so, the dynamic impacts of linkage creation and the crucial contribution it provides to the upgrading of skills and entrepreneurial capabilities must be explicitly recognized and sufficiently emphasized. A likely outcome will be a higher priority attached to linkage-creating diversification projects and programmes. Governments of developing countries, as well as the international community, should respond to this by creating a supportive policy framework and providing appropriately targeted financial and technical assistance.

Notes

1/ The share of non-fuel commodities in total world merchandise trade fell from 27.2 per cent in 1970 to 15.4 per cent in 1992.

2/ The instability index for commodities as a whole (calculated as the average percentage deviation of prices from their exponential trend) fell from 9.9 per cent in 1983-1988 to 2.8 per cent in 1988-1992. However, prices remained highly volatile in the case of some commodities, such as sugar, bananas, some vegetable oils, zinc and manganese ore, with the instability index exceeding 15 per cent.

3/ For the shares of primary commodities in all merchandise exports in individual developing countries, see UNCTAD Commodity Yearbook, 1993 (United Nations publication, Sales No. 93.II.D.8), pp. 86-88.

4/ For details, see "Fostering sustainable development in the commodity field: analysis of national experience in the management of natural resources with regard to commodity production - mineral resources and sustainable development", UNCTAD, Geneva, 1993 (TD/B/CN.1/16).

5/ Among the recent studies, see, for example, "Identification and analysis of factors affecting commodity markets with a view, inter alia, to reducing distortions", UNCTAD, Geneva, 1993 (TD/B/CN.1/13); and Global Economic Prospects and the Developing Countries, 1994 (World Bank, Washington, 1994).

6/ Among the many commodities adversely affected by technological change are lead (because of increased recycling), tin (substitution by aluminium and tin-free steel), tungsten (substitution, material-saving technologies) and hard fibres (substitution by synthetics).

7/ For example, April 1994 forecasts by the Economic Intelligence Unit Ltd.; by the Economist poll of forecasters; and by the World Bank in its publication Global Economic Prospects and the Developing Countries, 1994 (Washington, 1994).

8/ See A. O. Hirschman, The Strategy of Economic Development, New Haven, Yale University Press, 1958.

9/ For example, agriculture may have backward linkages with its suppliers such as the metal-working industry (equipment), chemical industry (fertilizers and insecticides), construction (irrigation works) and services (farm management, provision of technology). It also maintains forward linkages with manufacturing industries such as food processing, textiles and the chemical industry, which process agricultural inputs. The mining sector has backward linkages to the metal-working (equipment) and energy sectors, and their strongest forward link is to the metal refining industry.

10/ For example, the inflow of tourists in Kenya has indirectly benefited horticultural exports through the growing number of air flights to the country, and hence the availability of more air cargo space.

11/ See, for example, "Analysis of national experiences in horizontal and vertical diversification, including the possibilities for crop substitution", UNCTAD, Geneva, 1992 (TD/B/CN.1/14); and "World commodity trends and prospects, with particular emphasis on commodity-dependent developing countries in the light of the outcome of the eighth session of UNCTAD", report by the Secretary-General of UNCTAD (A/47/398).

12/ Apart from diversification, linkage creation may also be associated with finding new uses for traditional commodities. For example, use of sugar cane in production of ethanol in Brazil is reported to have created an estimated 600,000 new jobs in the ethanol sector. See "The World Sugar Market", UNCTAD, Geneva, 1994 (UNCTAD/COM/35), p. 13.

13/ The flower sector in Colombia, for example, which appeared in the 1960s, had by 1991 generated 40,000 direct and 25,000 indirect jobs. Backward linkages, developed as a result of demand for inputs, have stimulated the establishment of companies engaged in the supply of plastics, cardboard, fertilizers and refrigeration equipment, the creation of art and graphics firms and the development of transport companies and freight forwarders. See "analysis of national experiences in horizontal and vertical diversification, including the possibilities for crop substitution: country study - Colombia", UNCTAD, Geneva, 1994 (UNCTAD/COM/30).

14/ See, for example, "UNCTAD VIII: analytical report by the UNCTAD secretariat to the Conference" (TD/358, February 1992).

15/ See, for example, V. Bulmer-Thomas, Input-output analysis and the mineral sector in developing countries, Queen Mary College, London University, 1989; "Linkages between manufacturing and other sectors of the economy in the least developed countries", UNIDO, Vienna, 1991 (ID/WG.515/1 (Spec.)); and

S. Haggblade, P. Hayell and J. Brown: "Farm/non-farm linkages in rural sub-Saharan Africa", World Development, vol. 17, No. 8, 1989.

16/ The conclusions about the linkage intensity of various sectors have principally been based on data provided by input-output tables. However, input-output coefficients, which are used to measure the linkage intensity, are static, whereas the linkage intensity itself is dynamic and evolves over time. As a result, no definitive conclusions about the linkage intensity of sectors can be made.

17/ See, for example, K. Nadvi, "Industrial district experiences in developing countries", background paper for the UNCTAD/German Agency for Technical Cooperation (GTZ) symposium on the role of industrial districts in the application, adaptation and diffusion of technology, Geneva, 1992.

18/ For details on constraints on diversification, see "Analysis of national experiences in horizontal and vertical diversification, including the possibilities for crop substitution, UNCTAD, Geneva, 1992 (TD/B/CN.1/14).

19/ See "The local processing in developing countries of primary commodities", UNCTAD, Geneva, 1986 (UNCTAD/ST/CD/2), pp. 39 and 41.

20/ See "Trade and industrial policy for sustainable resource-based development: policy issues, achievements and prospects", UNCTAD, Geneva, 1994 (UNCTAD/COM/33).

21/ According to a recent UNCTAD report entitled "Transnational corporations in the world economy and trends in foreign direct investment to developing countries in particular, including the interrelationship of investment, trade, technology and development: trends in foreign direct investment" (E/C.10/1994/2), foreign direct investment by transnational corporations represented nearly 70 per cent of total private capital flows to developing countries in 1992, benefiting mainly relatively more developed countries in Asia (61 per cent of foreign direct investment) and Latin America and the Caribbean (31 per cent), with only 7 per cent going to Africa. Moreover, despite the lack of detailed data, it can be supposed that only a smaller part of these funds was designed to finance diversification projects.

22/ According to UNCTAD, resource flows from international financial institutions for commodity-related diversification with some export orientation represented roughly 5 per cent of their total annual commitments in 1984-1988. Furthermore, a considerable part of these resources has gone to horizontal diversification into traditional export products such as cotton, coffee, rubber and palm oil. See "Adequate financial resources for diversification", UNCTAD, Geneva, 1990 (TD/B/C.1/AC/12).

23/ See R. C. Baban and J. E. Greene, "The export performance of sub-Saharan Africa, 1970-1990: a survey", International Monetary Fund working paper, 1992 (WP/92/55).

24/ The total import value of products excluded from GSP in the three main GSP donors (the European Union, Japan and the United States) amounted to about US$ 140 billion in 1992, which corresponds to about twice the amount of actually benefiting trade. See "Seventeenth general report on the implementation of GSP: recent changes and policy issues", UNCTAD, Geneva, 1994 (TD/B/SCP/6), p. 15.

25/ See "Statistical profile: Africa's trade", GATT, Focus Newsletter, No. 106, March-April 1994, table 1, pp. 6 and 8; and Global Economic Prospects and Developing Countries, 1994 (World Bank, Washington, 1994).

26/ See R. Erzan and G. Karsenty, "Products facing high tariffs in major developed market economy countries" (UNCTAD discussion paper No. 22/1988), table 4, p. 8.

27/ Intraregional trade still represents only about 12 per cent of total trade in Southern Cone Common Market (MERCOSUR) countries, less than 7 per cent in the Andean Group and less than 5 per cent in Africa. By contrast, by 1991, intra-Asian trade as a share of total exports had grown to two thirds for China, over one half for the Association of South-East Asian Nations (ASEAN) and over two fifths for the newly industrialized economies. See World Economic Survey, 1993 (United Nations publication, Sales No. E.93.II.C.1), pp. 84, 86 and 87.

28/ See Global Economic Prospects and the Developing Countries, 1994 (World Bank, Washington, 1994).

29/ For example, S. M. Shafaeddin, "Trade liberalization and economic performance in the least developed countries", UNCTAD, 1994 (mimeograph).

30/ A. Kuyvenhoven and H. Poot, "Between inward- and outward-looking development: industry and trade in Indonesia", Industry and Development, No. 30/1992, p. 91.

31/ As regards the use of fiscal, mainly tax, incentives, it should always be considered whether their export subsidy effects do not violate the rules of international trade, since GATT explicitly prohibits using subsidies to promote exports.

32/ Two other measures are used to promote exports, namely duty drawbacks (which put exporters on an equal footing with foreign competitors in terms of prices of materials) and the setting-up of export processing zones. Those measures, though important from the point of view of export diversification, run, in fact, more or less counter to the processing of natural resources as they encourage import-dependent sectors and imports of inputs. They therefore have an intrinsic propensity to cut off export production from domestic industrial linkages.

33/ See "Analysis of national experiences in horizontal and vertical diversification, including the possibilities for crop substitution", UNCTAD, Geneva, 1992 (TD/B/CN.1/14).

34/ See C. Stevens, "Kenya: broadening the range of agricultural exports", The Courier, No. 127, May-June 1991, p. 70.

35/ See R. Riddel, "Zimbabwe: the expansion of non-traditional exports - general explanation", The Courier, No. 127, May-June 1991, p. 79.

36/ See "Analysis of national experiences in horizontal and vertical diversification, including the possibilities for crop substitution: country study - Colombia", UNCTAD, Geneva, 1994 (UNCTAD/COM/30), p. 35.

37/ Ibid., pp. 29-30.

38/ See "Adequate financial resources for diversification", UNCTAD, Geneva, 1990 (TD/B/C.1/AC/12), p. 7.

39/ This can be illustrated by the success of export diversification into horticulture in Kenya, where the public sector has extensively assisted private enterprises in their production and export activities.

40/ See S. Nanjundan, "Promotion of small-scale industry in India", Industry and Development, No. 31/1992.

41/ See "The local processing in developing countries of primary commodities", Geneva, 1986 (UNCTAD/ST/CD/2), p. 39.

42/ See draft report of the Trade and Development Board on the second part of its fortieth session, Item 3: Uruguay Round, UNCTAD, Geneva, 1994 (TD/B/40(2)/L.2/Add.33); and "Review of the implementation, maintenance, improvement and utilization of GSP: seventeenth general report on the implementation of GSP - recent changes and policy issues", UNCTAD, Geneva, 1994 (TD/B/SCP/6).

43/ See "Implementation of diversification in the commodity sector in Africa at the national, subregional and regional levels with the support of the international community" (A/46/324/Add.1); and "Need for and feasibility of the establishment of a diversification fund for Africa's commodities" (A/48/335 and Add.1 and 2).